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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/689,167

10/20/2003

Heinz H. Busta

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09/21/2007 )

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EXAMINER

FULK, STEVEN J

ART UNIT

PAPER NUMBER

2891

MAIL DATE

DELIVERY MODE

09/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/689,167

Applicant(s)

BUSTA, HEINZ H.

Examiner

Steven J. Fulk

Art Unit

2891

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 39 and 42-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39 and 42-51 is/are allowed.
- 6) ☒ Claim(s) 52-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendment filed June 26, 2007, which amends claims 39 and 52, has been entered. Claims 39 and 42-55 are currently pending.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 52-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al. '082.

Regarding claims 52-54, Lin et al. '082 discloses a method of fabricating a micro-machined apparatus comprising the steps of providing a substrate (fig. 7Q, layer supporting structure 450); fabricating a vertical substrate structure (450) extending from the substrate; and fabricating a cover substrate structure (fig. 7R, 456) residing on a portion of the substrate structure and defining a tortuous, labyrinth channel (channel 458), and removing sacrificial material (fig. 7Q, 452) internal to the enclosure through the tortuous channel (col. 11, lines 13-37).

Regarding claim 55, the reference discloses the step of enclosing a plurality of MEM devices in the micro-machined apparatus (col. 11, lines 35-37, plurality of micromechanical components being sealed).

***Response to Arguments***

4. Applicant's arguments with respect to claims 52-55 have been fully considered but they are not persuasive. Applicant argues that Lin does not disclose the tortuous channel in the cover structure to define a labyrinth path. This argument is not found persuasive because the plain meaning of "labyrinth" is defined as "a tortuous arrangement" (see attached definition #3 of "labyrinth"), and a "tortuous" path is defined as "winding or crooked" (see attached definition #1 of "tortuous"). Therefore, the bending path of channel 458 in figure 7R of Lin can be defined as a tortuous, labyrinth path because the material under cover 456 does not have a straight exit path.

***Allowable Subject Matter***

4. Claims 39 and 42-51 are allowed.
5. The following is an examiner's statement of reasons for allowance: a search of the prior art failed to disclose or reasonably suggest a micro-machined structure for enclosing a MEMS device comprising a structure extending from a substrate and at least partially covering the MEMS device; a cover structure residing on a portion of the substrate structure; a contact region provided on the cover substrate structure, acting as a pull-back contact for a MEM device residing on the substrate; and wherein the micro-machined structure defines at least one tortuous path capable of providing for a removal of material, as recited by claim 39.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven J. Fulk whose telephone number is (571)

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272-8323. The examiner can normally be reached on Monday through Friday, 9:30am to 6:00pm.

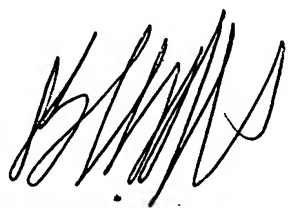
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Baumeister can be reached on (571) 272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Steven J. Fulk  
Patent Examiner  
Art Unit 2891

September 13, 2007



**B. WILLIAM BAUMEISTER**  
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